

REMARKS

Applicant is in receipt of the Office Action mailed December 16, 2003. Claims 1-31 were pending in the application prior to the present amendment. Applicant has amended claims 1, 2, 4-6, 10-14, and 16, and submits new claim 32 to more fully and completely claim Applicant's invention. Reconsideration of the present case is earnestly requested in light of the following remarks.

Objections in the Drawings

Applicant has amended the Specification to include reference characters 904, 906, 912, and 914. Applicant respectfully submits that the Drawings and Specification now comply.

Objections to the Specification

The Examiner states in the Office Action: "The discloser is objected to because of the following informalities: spelling of the word 'remote' on page 20, line 5. Replace 'buffer/emote' with 'buffer/remote'."

Applicant has amended the Specification to correct this typographical error.

§103 Rejections

Claims 1-5, 14-21, 24, 30, and 31 were rejected under 35 U.S.C. as being unpatentable over Mitchell et al. (U.S. Patent No. 5,659,749, hereinafter "Mitchell") in view of Baker et al. (U.S. Patent No. 6,006,286, hereinafter "Baker"). Applicant respectfully disagrees.

As the Examiner is certainly aware, to establish a prima facie obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP 2143.03. Obviousness cannot be established by combining or modifying the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion or incentive to do so. In re Bond, 910 F. 2d 81, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990).

Applicant submits that neither Mitchell nor Baker provides a motivation to combine, and that even if Mitchell and Baker were combinable, which Applicant argues they are not, the resulting combination would not produce Applicant's invention as claimed, as explained in detail below.

The Examiner states in the Office Action that "Claims 6-13 and 25-29 are objected to as being dependent upon a rejected claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims."

Applicant has amended independent claim 1 to include the subject matter of claims 3. Claim 3 has been cancelled. Claim 6 had been dependent upon claim 3 prior to this amendment. Accordingly, Applicant has also amended claim 6 to now depend on amended claim 1 without changing the subject matter included in claim 6 prior to this amendment. Applicant appreciates Examiner's allowance of the matter of claim 6, but believes that amended claim 1 as currently presented is patentably distinct over the cited references.

The Examiner states in the Office Action: "As per claim 3 and 18, Mitchell further discloses the buffer queue having the ability to store a plurality of transfer commands (Column 5, lines 28-50), thereby providing a double or more buffering mechanism."

As mentioned above Applicant has amended claim 1 to included the subject matter of claim 3 to more fully and completely claim Applicant's invention.

Applicant respectfully submits that Mitchell teaches and discloses: "The DMA transfer logic 221 includes a transfer queue storing transfer commands, and the DMA transfer logic 221 executes these transfer commands as they arrive at the head of the queue to perform data transfers. . .As discussed above, the DMA transfer logic 221 includes a transfer queue and performs data transfers, the context switching logic 220 performs context switching operations according to the present invention, and the VXI/MXI translation logic 314 performs translations between VXI and MXI signals" (Mitchell col 5, lines 32-51) (*emphasis added*).

In contrast, Applicant's invention as currently recited in pertinent part by claim 1 includes “. . .transferring a second portion of the plurality of transfer links from the host computer system to a second portion of the link buffer of the data acquisition device over the communication medium, wherein at least a portion of said transferring the second portion of the plurality of transfer links and at least a portion of said executing the first portion of the plurality of transfer links are performed concurrently.” Mitchell and/or Baker nowhere teach or suggest this feature. Applicant respectfully further submits that Mitchell and/or Baker provide no teaching, suggestion, or motivation for double buffering.

Accordingly, Applicant respectfully submits that claim 1 is patentably distinguished over both Mitchell and Baker, taken singly and in combination, at least for the reasons presented. Claims 2 and 4-15 are dependent upon claim 1, and are believed to be allowable for at least the reasons given above in support of claim 1.

Applicant's Specification includes “Therefore, in a preferred embodiment of the invention, the data acquisition device 110 executes the transfer links from the link buffer 322 to transfer data between the data buffer 324 in the data acquisition device 110 and host memory 312 in the host computer system 108 while the host computer 108 transfers further links to be executed to the link buffer 322 of the acquisition device 110, thereby implementing a double buffering scheme for link transferal” (Specification page 18, lines 6-11) (*emphasis added*).

Applicant's invention as currently recited in pertinent part by claim 16 includes “. . .wherein the host computer system is operable to prepare a plurality of transfer links and transfer the plurality of transfer links to the link buffer of the data acquisition device in a double buffered fashion. . . .” As argued above with respect to claim 1, Mitchell and/or Baker nowhere teach or suggest this feature. Accordingly, Applicant respectfully submits that claim 16 is patentably distinguished over both Mitchell and Baker, taken singly and in combination, at least for the reasons presented. Claims 17-31 are dependent upon claim 16, and are believed to be allowable for at least the reasons given above in support of claim 16.

For at least the reasons presented above, removal of the §103 rejection of claims 1-5, 14-21, 24, 30, and 31 is respectfully requested.

As stated above, Applicant has submitted new claim 32 to more fully and completely claim Applicant's invention. Applicant respectfully submits the following reasons that new claims 32 is patentably distinguished over Mitchell and Baker, taken either singly or in combination.

Mitchell and/or Baker nowhere teach or suggest: “. . .the host computer system preparing a linked list of transfer nodes, wherein each of the linked list of transfer nodes includes a true address of physical memory of the host computer system. . .” as recited in pertinent part by claim 32.

Furthermore, Mitchell and/or Baker nowhere teach or suggest: “. . .wherein, for each transfer node of the linked list of transfer nodes, the true address of the transfer node corresponds to a virtual address of a buffer, wherein the buffer spans contiguous virtual addresses mapping to the physical memory of the host computer system, wherein an Nth transfer node corresponds to an Nth virtual address of the buffer” as further recited in pertinent part by claim 32.

Therefore, Applicant respectfully submits that claim 32 is patentably distinguished over Mitchell and Baker, taken either singly or in combination. Accordingly, Applicant respectfully submits that, at least for the reasons presented, claim 32 is allowable.

Applicant also asserts that numerous ones of the dependent claims recited further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

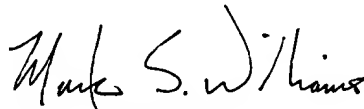
Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-39400/JCH.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☐ Request for Approval of Drawing Changes
- ☒ Notice of Change of Address
- ☐ Check in the amount of \$ for fees ().
- ☐ Other:

Respectfully submitted,



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